Yosemite National Park

National Park Service
U.S. Department of the Interior

Mechanical Thinning: Big Oak Flat Road, Wawona Road

In June 2003, Yosemite fire managers began a project to remove the dangerous build-up of brush and dead or downed trees along the Big Oak Flat Road corridor (Highway 120 inside the park). This project continues in 2004 and includes the Wawona Road (Highway 41 inside the park) as well the Big Oak Flat Road. To park fire managers, the "miles of piles" is a successful hazard fuel reduction project.

This process—known as *mechanical thinning*—is one tool used by the National Park Service to reduce heavy accumulation of fuels and, ultimately, help prevent larger fires. In turn, this helps preserve natural and cultural resources and provide for public and firefighter safety. These projects also serve to protect park and community structures from larger fires.

The "miles of piles" along Big Oak Flat Road demonstrate the park's efforts to reduce the build-up of hazardous fuels.

What is the purpose of roadside thinning projects such as these?

The project areas along the Big Oak Flat Road, east of the San Joaquin Overlook to the Big Meadow Overlook, and the Wawona Road, south of Yosemite West, are heavily overgrown. The primary goal of these projects is to reduce fire hazards along major travel routes through the park. In the event of a wildfire, this will help ensure public and firefighter safety. Thinning for removal of hazardous wildland fuels establishes and maintains fuelbreaks and evacuation routes in the event of a wildland fire emergency. It also helps prevent the potential for a large fire to spread in the tops of the trees (known as *crown fires*) which could ultimately overrun the road.

How much and what was thinned?

During summer 2003 and 2004, approximately 1,000 acres were thinned, brushed, and piled by crews. Chainsaws were used to thin areas within 200 feet, on either side, of the Big Oak Flat Road and the Wawona Road. Primarily young conifers and mixed brush (including manzanita and ceanothus) were thinned.

Why is paper placed on top of the piles?

The *Kraft* paper that you see placed on top of burn piles is used to help keep the fuels dry. The paper keeps enough seasonal moisture out, so that piles are easier to ignite during late fall, winter, and early spring.

How safe is it to burn the piles?

Park fire managers determine when conditions are favorable for burning. The pile burning is planned for times of favorable weather, especially in the late fall and winter. With a large amount of cut material, scorching of nearby trees is inevitable and expected.

Why are some of the trees brown?

The dead lower limbs and needles on some trees are a result of pile burning conducted beneath them. The smaller trees that are completely scorched will be removed. The dead needles on the lower branches of the larger trees will fall off and become less noticeable within two years.

Park fire ecologists have installed monitoring plots within the thinning project areas. These plots are used to measure the effects of thinning on vegetation. Information gathered and analyzed from these plots will be benificial for future thinning projects.

Are mechanical thinning projects planned for other areas in Yosemite?

Yes. Less visible thinning projects are ongoing in other developed areas of Yosemite at risk from wildland fire. These *Wildland Urban Interface* (WUI) areas include Aspen Valley, El Portal, Foresta, Hodgdon Meadow, Wawona, Yosemite Valley, and Yosemite West. These areas support public and private structures that are bordered by wilderness. In order to restore and maintain surrounding ecosystems, mechanical thinning and pile burning are often done prior to, or in place of, prescribed burning. This is to ensure the safest situation possible.

For More Information

For further information or questions about mechanical thinning projects, please contact Deb Schweizer, Yosemite National Park Fire Education Specialist:

Phone: 209/372-0480

Email: debra_schweizer@nps.gov